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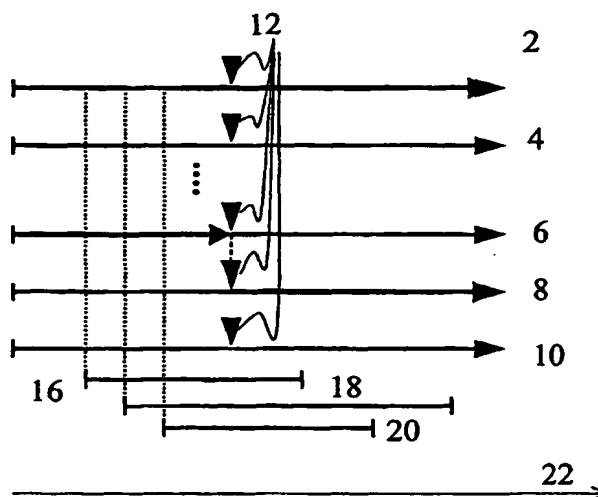
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(54) Title: METHOD AND DEVICE FOR REPRODUCING MULTI-TRACK DATA ACCORDING TO PREDETERMINED CONDITIONS



(57) Abstract: The present invention provides a mass storage, an electronic multi-track reproducer, and a method to reproduce multi-track data. The invention is to provide the possibility to change reproduction medium according to present environmental conditions, e.g. to change from a text reproduction seamlessly to the reproduction of a radio play, in case environmental conditions indicate that the user is actually not capable of reading because of vibrations or a too low illumination. To provide these features to a user, a mass storage, a multi-track reproducer, and a method for reproducing the tracks according to detected environmental conditions is provided. Said invention is based on multi-track data, wherein at least a subset of said tracks is sufficient for a basic perception of said data, and at least two of said tracks are provided with synchronization markers. The reproduction can seamlessly jump between the different tracks and reproduction modes, as the tracks are synchronized by the markers.

WO 2004/006209 A1



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB 02/02614

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: G09B 5/06, H04Q 1/00 // H04Q 3/00
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: H04Q, H04N, G09B, G06F, G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2002081560 A1 (KA-WAH, C.C. ET AL), 27 June 2002 (27.06.02), the whole document --	1-10,12-27
Y	US 5991594 A (FROEBER, H. ET AL), 23 November 1999 (23.11.99), the whole document --	1-10,12-27
A	WO 0111588 A2 (SONG, J.K.), 15 February 2001 (15.02.01) --	1-27
Y	WO 9837555 A1 (ZEN RESEARCH N.V.), 27 August 1998 (27.08.98), the whole document -- -----	1-10,12-17, 19

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 1172739 A2 (DISCOVERY COMMUNICATIONS, INC), 16 January 2002 (16.01.02), page 2, line 19 - page 3, line 28 -----	18,20-27

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Patent document cited in search report			Publication date	Patent family member(s)		Publication date
US	2002081560	A1	27/06/02	NONE		
US	5991594	A	23/11/99	NONE		
WO	0111588	A2	15/02/01	AU	6629600 A	05/03/01
				DE	10084911 T	29/08/02
WO	9837555	A1	27/08/98	EP	1010171 A	21/06/00
				EP	1010172 A	21/06/00
				JP	2001511931 T	14/08/01
				JP	2001511932 T	14/08/01
				US	5907526 A	25/05/99
				US	6111831 A	29/08/00
				US	6381210 B	30/04/02
				WO	9837554 A	27/08/98
EP	1172739	A2	16/01/02	AU	3213000 A	18/08/00
				CA	2359690 A	03/08/00
				EP	1149350 A	31/10/01
				JP	2002540490 T	26/11/02
				WO	0045299 A	03/08/00